TheATLAS

Its-Village

ADVANCE PROGRAM

# TRANSDISCIPLINARY & TRANSNATIONAL TRANSCULTURAL – $T^3$ BI-ANNUAL MEETING

# HONORING
## Red McCombs

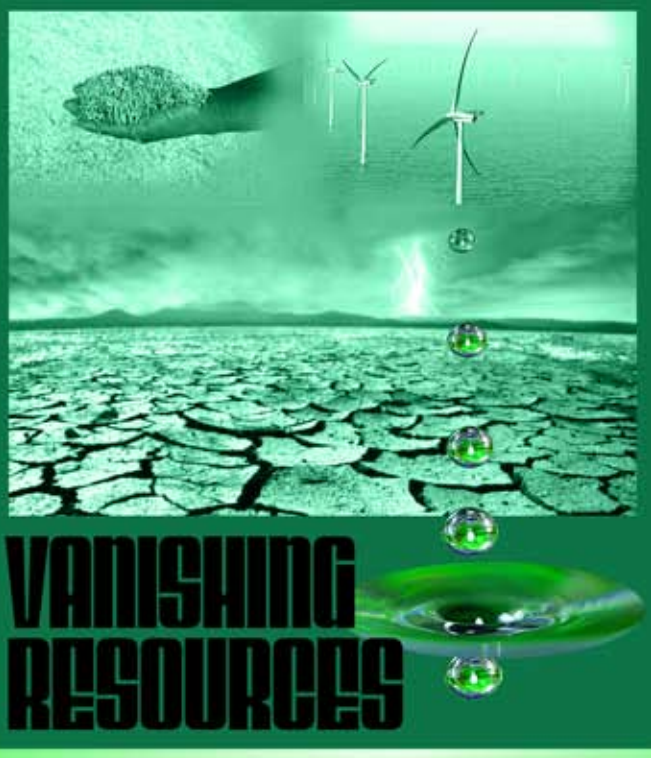
SOUTHWESTERN UNIVERSITY
Georgetown, Texas
May 23-28, 2010

## CONFERENCE THEME

*Transdisciplinary Sustainable Development*

**Building a Model Sustainable Community:**

***International Transdisciplinary Scientists' Village***




**SPONSORED BY**

The Academy of Transdisciplinary Learning & Advanced Studies (TheATLAS)
Southwestern University, Georgetown, Texas

**CO-SPONSORED BY**

City of Georgetown
Georgetown Chamber of Commerce
Georgetown Economic Development
Transdisciplinary Sustainable Energy Lab (T-SEL) Texas Tech University
George Kozmetsky Endowment (GKE)

**PARTNER**

EarthCo Building Systems, Inc., Texas

# Advance Program

# TRANSDISCIPLINARY & TRANSNATIONAL TRANSCULTURAL - T³

## BI-ANNUAL MEETING

# HONORING Red McCombs

*Southwestern University*
*Georgetown, Texas*
**May 23 - 28, 2010**

TheATLAS T³ Bi-Annual Meeting will be held at the Southwestern University. Founded in 1840 as the first institution of higher learning in Texas, Southwestern University has a rich history grounded in the pioneering spirit of those who settled the beautiful Texas Hill Country. Southwestern is a private, highly selective liberal arts institution encompassing the Brown College of Arts and Sciences and the Sarofim School of Fine Arts. Located in historic Georgetown, just north of Austin, Southwestern's serene residential campus occupies a small portion of 700 acres that include the San Gabriel river and areas reserved for biological and environmental research. As part of the conference, you will have the opportunity to learn about Southwestern University.

## FOCUS OF ANNUAL MEETING

The bi-annual meeting program will consist of invited and selected papers emphasizing transdisciplinary, transnational and transcultural global problems. Plenary sessions and keynote panels will be presented by prominent speakers.

The main theme of this bi-annual meeting is to understand the complex issues related to development of global sustainable society in all possible opportunities, both physical and social: from clean or renewable energy use, vibrant local economies, and sustainable agriculture, to community involvement in decision-making, biodiversity, and mixed-use urban planning as well as where people enjoy living and working together, now and in the future! A feasible model of Green Transdisciplinary Scientists' Village will be also the main focus of the discussion during the annual meeting. Other topics of the 2010 TheATLAS annual meeting include:

- Development of shared conceptual framework that draws upon discipline specific concepts, theories, and methods (integrative methods, concepts and tools).
- Development of integrated analysis, synthesis, and design from a wide range of knowledge.
- Transdisciplinary cognitive integration, transdisciplinary sustainability research.
- Unified transdisciplinary modeling framework—developing computer based modeling systems that permit cooperation and collaboration among diverse groups that are globally dispersed in order to drive complex research efforts to an innovative solution.
- Designing the communication infrastructure and shared resources to facilitate computational and transdisciplinary thinking within existing organizations.
- Abstract design and development—extending and adapting common abstractions to better suit unified modeling approaches in the search for solutions to unstructured complex problem sets.
- Transdisciplinary information for system engineering and management.
- Software and tool developments which can be used by different disciplines.
- Transdisciplinary research results involved with sensors and nanotechnology.
- Design methods and analysis used by different disciplines (such as image processing and analysis, statistical methods, probabilistic methods etc.)

Researchers are encouraged to submit manuscripts related to global complex problems such as transportation, humanitarian needs, security, natural disasters, health, international development, environment, sustainable development; societal systems, green engineering and science. Papers related to transdisciplinary education will also be considered for presentation and publication.

## IMPORTANT DEADLINES

**Abstract submissions due** December 28, 2009
**Full paper submissions due** February 26, 2010
**Final acceptance** April 9, 2010
**Final manuscript due** April 16, 2010

The abstract (200 words) may be submitted by fax or e-mail. Please submit your papers to session developer or Dr. Atila Ertas (aertas@coe.ttu.edu)

## TECHNICAL PAPER PUBLICATION

All technical papers will be reviewed by the Program Technical Committee. All accepted papers will be published in the conference proceedings. Competitively selected papers will be first published in the *Transdisciplinary Journal of Engineering & Science* by ISSN number then every year will be included in a book published by TheATLAS with an ISBN number. For more information see www.theatlas.org

# TheATLAS T³ BI-ANNUAL MEETING SPECIAL FEATURES

**May 23-27, 2010 Southwestern University, Georgetown, Texas**

## ANNUAL MEETING THEME

## Transdisciplinary Sustainable Development

*"meet the needs for the present without compromising the ability of future generations to meet their own needs" (Brundtland Commission Report of 1987 ).*

*Earth provides enough to satisfy every man's need, but not every man's greed. Mahatma Gandhi.*

The world of nature is increasingly dominated by our behavior. Humanity must take no more from nature than nature can provide. Future generations should not be affected by our present actions. Global and shared resources such as atmosphere, oceans and shared ecosystems must be protected by all of us. All nations stand to gain from global sustainability and are threatened if we fail to attain it. Developing and underdeveloped countries must be helped to develop sustainably and protect not only their environments but also ours.

## OPENING RECEPTION

### *Jake B. Schrum*

Sunday, May 23, 5:30 pm - 7:00 pm, Room:

**Jake B. Schrum**
*President*
*Southwestern University*
*Georgetown, Texas*

Having lived in Texas, Georgia, Connecticut and Pennsylvania, Schrum has been an administrator at two major research universities and three liberal arts colleges. He is widely recognized as an author and speaker in the field of educational advancement and moral leadership in higher education.

In his many civic, professional, and service activities, Schrum has served as Chair of the Council for Advancement and Support of Education, the world's largest international education association. He is a former Chair of the Board of Directors of the Associated Colleges of the South, the Southern University Conference, Independent Colleges and Universities of Texas, the Chisholm Trail Communities Foundation, and the Georgetown Project. He serves on the Board of Directors of Richmond, The American International University in London, Georgetown Health Foundation, the Educational and Institutional Insurance Administrators (immediate past chair), the Southern Collegiate Athletic Conference, former chairman of Association of Texas Colleges and Universities, the Texas Independent College Foundation, and First Texas Bank in Georgetown. He also serves on the Council of Presidents of the Association of Governing Boards. Schrum was recently named Georgetown Citizen of the Year by the Chamber of Commerce (2009).

Schrum is a member of the American Council on Education, the National Association of Independent Colleges and Universities, the Council of Independent Colleges, the National Collegiate Athletic Association, the National Association of Schools and Colleges of the United Methodist Church, the Annapolis Group, the Philosophical Society of Texas, and the Austin Area Research Organization. Schrum is a consultant and a frequent lecturer on topics related to the advancement of higher education. He is one of the leading proponents of the New Urban University concept in higher education and wrote a book titled *Democracy's Last Stand: The Role of the New Urban University*. The Association of Governing Boards in Washington, D.C., published a book, edited by Schrum, titled *A Board's Guide to Comprehensive Campaigns*. He edited *Justice for All* for Southwestern University. He received the Honorary Doctor of Laws degree from Southwestern University in 1991.

## SPECIAL EVENTS ON Monday, May 24, 2010

## OPENING ADDRESS

### *W. Joseph King*

Monday, May 24, 9:00 am - 9:30 am, Room:

**W. Joseph King**
*Vice President for Innovation*
*Southwestern University*
*Georgetown, Texas*

**Creative Destruction: The Innovation of Sustainability**

Dr. W. Joseph King is executive director of the National Institute for Technology and Liberal Education and vice president for innovation at Southwestern University. Previously, he was the executive director of Connexions. In addition to his work in higher education, Dr. King is a serial entrepreneur. He was president of QOOP, a social commerce platform. He was president of Zama Networks, a quality of service internet backbone acquired by Mitsui & Co. He was also chief scientist of F5 Networks (Nasdaq: FFIV), which has become the industry leader in network traffic management. He was a research scientist at the Human Inter-

face Technology Laboratory of the University of Washington, and he has conducted research at Hughes Research Laboratories, GTE Telecommunications Research, and the Advanced Telecommunications Research Institute. He is on the board of Fossil Rim Wildlife Center, chairman of Rice University Press, and board member of Connexions. He holds a B.A. with honors from Southwestern University and a Ph.D. from the University of Washington.

## CONFERENCE KEYNOTE SPEAKER
## Red McCombs

Monday, May 24, 9:30 am- 10:00 am, Room:

**Red McCombs**
*McCombs Enterprises*
*Chairman & COO*

Red McCombs, born in Spur, Texas, attended Southwestern University and the University of Texas at Austin School of Business and School of Law. He left law school in his second year and began his career as a salesman in the automobile business in Corpus Christi in 1950. In 1958 he relocated to San Antonio where he is owner of Red McCombs Automotive. In addition to his auto interests, he is co-founder of Clear Channel Communications and of McCombs Energy in Houston and is active in a variety of other businesses.

McCombs has served leadership roles in many national, state, and local organizations including Chamber of Commerce, United Way and San Antonio's World Fair. He formerly served as Chairman of the Board of Trustees of Southwestern University where he has been honored as Distinguished Alumnus. He is past Chairman of the Board of Visitors of University of Texas M.D. Anderson Cancer Center in Houston. Mr. McCombs has chaired many fund drives and community service organizations. He has been honored as Distinguished Alumnus of the University of Texas at Austin. He has also been honored with numerous local, state, and national recognitions including the San Antonio Business Hall of Fame, the National Automobile Dealers Hall of Fame, the Texas Business Hall of Fame, and the National Football College Hall of Fame. In the past, Mr. McCombs was the owner of the Minnesota Vikings, an NFL franchise based in Minneapolis/St. Paul. In addition, he has owned the San Antonio Spurs, a National Basketball Association team which he secured for San Antonio in 1972. He also owned the NBA Denver Nuggets which he sold in 1985. At age 25, he purchased his first professional sports team, the Corpus Christi Texas Clippers in the Big State Baseball League.

He is the namesake of the McCombs School of Business at the University of Texas at Austin (an honor given in recognition of a fifty million U.S. dollar donation to the University) and was named one of Forbes magazine's 400 richest Americans for the past 10 years. McCombs' carrier effort in business spans a broad spectrum, including automotive industry, communications, sport industry, real estate development, exploration of oil and gas and finally various insurance companies.

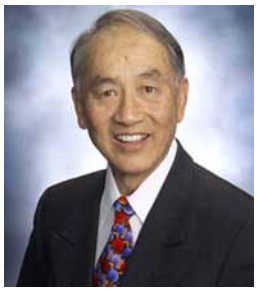
## KEYNOTE PANEL-I
## Leadership in the 21st Century

Monday, May 24, 10:20 am- 12:00 pm, Room:

**Organizer and Chair:** Dr. Raymond T. Yeh

**Panel objective**

We live in a time of serious leadership failures at all levels of our society which has brought about the massive meltdowns of our families, educational and financial institutions. This panel will explore how effective leadership must be rooted in a clear understanding that inner perfection leads to outer achievements, integrity builds real wealth, and substance defines beautiful forms.



**Raymond T. Yeh**
*TheATLAS*
*Honorary Board Member*

Dr. Raymond Yeh is a senior research fellow at *IC$^2$ Institute* at the University of Texas at Austin, and a Chair Professor at Asia University (Taiwan). He taught at several universities for 20 years and helped two Computer Science departments to achieve top ten national rankings. Dr. Yeh held the CDC Endowed Chair Professor at the University of Minnesota in 1983, and has been an honorary professor at several universities. He has published ten technical books and coauthored two business books.

As the founding editor-in-chief of the *IEEE Transactions on Software Engineering*, and founder of the *IEEE International Conference on Software Engineering* (ICSE), he helped *Software Engineering* developed into a formal academic discipline.

He co-founded two successful software companies and had been a management consultant to many nations, and worked with executives of many leading edge global companies as well as with founders of many start-up enterprises.

He is a fellow of Institute of Electrical and Electronic Engineers (IEEE), the Society for Design and Process Science (SDPS) and was an honorary research fellow of Fujitsu's International Institute. Dr. Yeh is a recipient of the Pioneer in Information Technology Award from the government of Taiwan, IEEE Centennial Medal, and the ATLAS Gold Medal, among others.

## KEYNOTE PANEL-I DISTINGUISHED PANELISTS

**Red McCombs**
*McCombs Enterprises*
*Chairman & COO*

(see Keynote Speaker for short bio)

**Pike Powers**
*Partner*
*Fulbright & Jaworski L.L.P.*

A partner since 1978, Pike Powers is Of Counsel in Fulbright & Jaworski L.L.P.'s Austin office. Mr. Powers was Executive Assistant to Governor Mark White in 1983 and from 1972 to 1979 represented Jefferson County in the Texas House of Representatives. He has extensive experience in handling complex legal and political issues before state courts and federal courts, as well as federal and state agencies. Mr. Powers has been a member of the Board of Directors of the State Bar of Texas and has held various posts as well in the American Bar Association and in the Texas and American Bar Foundations. He is a former chairman of the Board of the Austin Chamber of Commerce. Mr. Powers is a member of the Maritime Law Association of the United States, the Federation of Insurance and Corporate Counsel and the National Association of Railroad Trial Counsel.

He was named a "Texas Super Lawyer" in General Litigation law in the November 2003 issue of Law & Politics; and honored in The Best Lawyers in America in Administrative Law, Commercial Litigation, Government Relations Law in 2010. His tireless work for many years helped to build Austin and Texas into major technology centers.

Mr. Powers was a leader in creating the Texas Technology Initiative which was established in 2002 as a collaborative effort between the government, academia, and private industry. In response to the TTI strategy and the need to be globally competitive with incentive programs, the State of Texas created a $295 million Enterprise Fund under the leadership of Governor Perry and Powers. Mr. Powers received a B.A. in 1962 from Lamar University and a J.D. in 1965 from The University of Texas. He was admitted in 1965 to practice law in Texas.

**Reverend Heng Sure**
*Managing Director of the*
*Berkeley Buddhist Monastery*

Dr. Dharma Master Heng Sure was ordained as a Buddhist monk in 1976. For the sake of world peace, he undertook an over six hundred mile pilgrimage from South Pasadena to Ukiah, repeatedly taking three steps and one bow to cover the entire journey. In the entire two years taken to make the pilgrimage, he observed a practice of total silence. Rev. Heng Sure has an M.A. in Oriental Languages from UC Berkeley, and a Ph.D. from the Graduate Theological Union in Berkeley. He serves as the Managing Director of the Berkeley Buddhist Monastery and teaches on the staff at the Institute for World Religions. He lectures on the Avamtasak Sutra at the Berkeley Monastery every Saturday evening. He is actively involved in interfaith dialogue and in the ongoing conversation between spirituality and technology.

**Bob Block**
*Chairman*
*3-D Business Tools, CA*

Robert S. Block is a serial entrepreneur and has a long and successful career in the computer software, communication and entertainment industries including pioneering roles in commercial and pay television and cellular telephone operating companies, and the new energy business. Block has contributed significantly to the creation and development of entertainment and communication technologies used worldwide. He has been granted more than 150 international patents. Block holds an Honorary Doctorate degree from the United States Sports Academy.

## LUNCHEON SPEAKER
## Lily Yeh
Monday, May 24, 12:00 pm - 1:00 pm, Room:

**Lily Yeh**
*Founding Director and*
*Lead Artists*
*Barefoot Artists, Inc.*

### Creating Compassionate and Sustainable Community through Art

Lily Yeh is an internationally celebrated artist and award-winning founder and former executive and artistic director of the Village of Arts and Humanities. Since 1986, with the help of neighborhood children and adults, Yeh has built the Village from an abandoned lot into an organization and a community. She has infused the Village with her own artistic sensitivity and vision, collaborating with other artists and community residents to create a place that brings art into both the physical space and daily rhythms of life. Expanding beyond North Philadelphia, Yeh's work has taken her to communities in other parts of the country as well as abroad.

Born in Kueizhou, China, Yeh studied traditional Chinese painting in Taiwan before coming to the United States in 1963. In 1968, she began teaching at the University of the Arts where she became professor of painting and art history. In 1998, she resigned from her tenured position to devote all her time to her work at the Village of Arts and Humanities. Under her leadership as founder, executive director and lead artist from 1968 to 2004, the Village has become a national model of community building through the arts. In the last five years of her tenure there, the Village has received several national awards including Coming Up Taller Award from the President's Committee on Arts and Culture and the National Endowment for the Arts, Washington, D.C. in 2000 and the gold medal Rudy Bruner Award for Urban Excellence from Bruner Foundation in Cambridge, MA. In 2003, the Village received a Commonwealth of Pennsylvania Governor's Award

for Environmental Excellence. In the same year, Yeh received the prestigious "Leadership for the Changing World" Award from the Ford Foundation. In 2007, the Village is being honored with Champion in Action Award by Citizens Bank for its building community through the arts effort.

In 2004, Yeh left the Village to pursue her work internationally. She formed a new non-profit organization, Barefoot Artists, Inc., with the mission to bring the transformative power of art to the most impoverished communities in the world through participatory and multifaceted projects that foster community empowerment, improve the physical environment, promote economic development, and preserve indigenous art and culture. Yeh has conducted lectures, workshops and land transformation projects in many places in the world. Her current work, the Rwanda Healing Project, includes the construction of the 1994 Genocide Memorial and the transformation of a survivors village in the Rugerero district in West Rwanda. It has won her the SEGD (Society for Environmental Graphic Design) 2006 Design Award and the Earth Movers Award from Natural Home Magazine in 2007. Yeh's work has impacted people and places in China, Columbia, Ecuador, Ghana, Italy, Ivory Coast, Kenya, the Republic of Georgia, Rwanda and the United States.

## PLENARY SESSION-I
## DISTINGUISHED SPEAKER
### Pike Powers
Monday, May 24, 1:00 pm - 1:30 pm, Room:

**Pike Powers**
*Partner*
*Fulbright & Jaworski L.L.P.*

(see Keynote Panel-I for short bio)

## KEYNOTE PANEL-II
### Transnational-Transcultural Ethics:
### *International unethical practices and Corruption Issues*
Monday, May 24, 1:30 pm- 3:30 pm, Room:

**Organizer and Chair:** Dr. Raymond T. Yeh

## KEYNOTE PANEL-II
## DISTINGUISHED PANELISTS

**Panel objective**
The objective of this Keynote Panel is to deliberate the international unethical practices and corruption issues and their impact on human societies. Real life case study will be discussed.

**William M. Marcy**
*Executive Director*
*National Institute*
*for Engineering Ethics*
*and*
*Murdough Center for Engineering Professionalism*

Dr. Marcy is the Executive Director of both the Murdough Center for Engineering Professionalism and the National Institute for Engineering Ethics. He has been with Texas Tech University since 1975 and has served in the following positions: Provost and Senior Vice President for Academic Affairs (2002–2008), Dean of Engineering (1999–2002), Interim Dean of Engineering (1998–1999), Associate Dean of Engineering (1995–1998), Chair and Professor of Computer Science (1987–1995). In addition, he served as External Director for FSI International, Chaska, Minnesota (1984–1997), Chief Operating Officer for the Information Planning Corporation, Dallas, Texas (1984–1997), Manager of Business Planning and Development for the National Production Systems Division of the National Supply Company (1980–1982), Central Intelligence Agency Chief of the Engineering and Planning Branch, Office of Security, Directorate for Administration (1966–1974).

Dr. Marcy is a member of the National Society of Professional Engineers, the Texas Society of Professional Engineers, the Institute of Electrical and Electronics Engineers (IEEE), the Association for Computing Machinery, the IEEE Computer Society, the American Association for Engineering Education (ASEE), the Semiconductor Materials and Equipment Institute (SEMI), and the Institute of Industrial Engineers (IIE). Dr. Marcy received the honor of Distinguished Engineer, College of Engineering, Texas Tech University (2003) and was selected as the Engineer of the Year for the South Plains Chapter of the Texas Society of Professional Engineers (2001). Currently, Dr. Marcy is actively involved with research and teaching.

**Dr. Juan M. Sanchez**
*Vice President for Research*
*The University of Texas at Austin, TX*

Dr. Juan M. Sanchez is the Vice President for Research at The University of Texas at Austin and holder of the Temple Foundation Endowed Professorship #4 in the Department of Mechanical Engineering. He obtained his B.S. in Physics at the University of Cordoba, Argentina, 1971; M.S. in Materials Science, 1974; and Ph.D. in Materials Science, 1977 at the University of California, Los Angeles. Dr. Sanchez is the author and co-author of over 140 technical publications on a wide range of topics in materials science and engineering. His current research interests are in the electronic, thermodynamic and structural properties of materials including intermetallic compounds, magnetic and non-magnetic alloys, thin films and magnetic multilayers. His primary interest is the development and application of first principles computational methods for the construction of phase diagrams of multicomponent material systems. Other research interests include the develop-

ment of laser-controlled selective chemical vapor deposition processes for metals, alloys and ceramics.

Dr. Sanchez serves on the Council of Federal Relations of the Association of American Universities; on the Board of Directors as Council Vice Chair for the Oak Ridge Associated Universities, and the Texas Nanotechnology Initiative. He also serves as a Representative to the Government-University-Industry Research Roundtable of the National Academies, as Trustee for the Southeastern Universities Research Association, Inc., as a Member of the Institutional Oversight Board Member for the National Partnership for Advanced Computing Infrastructure (NPACI), the Board of Visitors of the US Army War College, Member of the International Consulting Board, Advisory Board for the Texas Coalition for Capital, and the National Scientific and Policy Advisory Council for the Hogg Foundation for Mental Health.

**Shannon May**
*President & Founder*
*Bridge International Academies*

Shannon May is a U.C. Berkeley trained anthropologist with substantial experience working with and researching the economic transformation of poor and rural communities in developing countries as well as uncovering the underlying drivers of success and failure of local and international community development initiatives. Ms. May's work combines a rigorous academic, human-centered field research approach with the organizational experience of advising, consulting with, and helping international NGOs, government poverty initiatives and corporations to approach development objectives with a more grounded understanding of local economics, population dynamics, and community goals and constraints.

Most recently, Ms. May conducted a two-year long field research study of a transnational sustainable development project located in a rural farming community in Liaoning, China. Ms. May is no stranger to the challenges of poverty, having been a resident living for two-years in this mountain village, Huangbaiyu, where families survive on less than a dollar per person per day in the harsh winters of China's Northeastern mountains. Her experience also extends to the classroom, having been a teacher at both a small rural primary school in Huangbaiyu and in the lecture halls of U.C. Berkeley, where she has received several teaching awards. Ms. May serves as an advisor to multiple international organizations focused on development and sustainable cities around the world. Her research, funded by the National Science Foundation, has been published in several international journals and is the subject of a book in progress.

Prior to her research in development, Ms. May worked as a financial analyst at Morgan Stanley and previously led the creation of several new online media initiatives at media conglomerate Hachette Lagardere in New York.

Ms. May received her BA, Magna Cum Laude in Social Studies from Harvard University and her MA in anthropology from UC Berkeley.

## PLENARY SESSION-II
## DISTINGUISHED SPEAKER
## Julie Thomson Klein

Monday, May 24, 4:00 pm - 4:30 pm, Room:

**Julie Thompson Klein**
*Professor, Humanities*
*Wayne State University*

### Prospectus for a Shared Conceptual Framework of Transdisciplinarity

Dr. Julie Thompson Klein is Professor of Humanities at Wayne State University in Detroit, Michigan (U.S.A.). Holder of a Ph.D. in English from the University of Oregon, Dr. Klein is past president of the Association for Integrative Studies (AIS) and former editor of the AIS journal, Issues in Integrative Studies. Her books include *Interdisciplinarity: History, Theory, and Practice* (l990), *Interdisciplinary Studies Today* (co-edited, 1994), *Crossing Boundaries: Knowledge, Disciplinarities, and Interdisciplinarities* (1996), *Transdisciplinarity: Joint Problem Solving among Science, Technology, and Society* (co-edited, 2001), *Interdisciplinary Education in K-12 and College* (edited, 2002), *the monograph Mapping Interdisciplinary Studies* (1999), and *Humanities, Culture, and Interdisciplinarity: The Changing American Academy* (2005). She is also author of the forthcoming book *Creating Interdisciplinary Campus Cultures*, Associate Editor of the forthcoming Oxford Handbook on Interdisciplinarity, and author of numerous book chapters and journal articles.

Klein has received both national and international awards and invitations. She was elected to the Wayne State University Academy of Scholars and is a recipient of the President's Award for Excellence in Teaching, the Graduate Mentor Award, the Board of Governor's Distinguished Faculty Award, and the Board of Governors Distinguished Faculty Fellowship. She also won the final prize in the Eesteren-Fluck & Van Lohuizen Foundation's international competition for new research models, for her essay "Applying Interdisciplinary Models to Design, Planning, and Policy Making," and received the Kenneth Boulding Award for outstanding scholarship on interdisciplinarity. In addition, she has represented the United States at an OECD-sponsored international symposium on interdisciplinarity in Sweden and at UNESCO-sponsored symposia on transdisciplinarity in Portugal and in France. In 1997-98, she was Senior Fellow at the Association of American Colleges and Universities (AACU), and in Fall 2008 she was an invited Visiting Fellow in the Institute for the Humanities at the University of Michigan. Klein consults widely throughout North America. In addition to helping numerous colleges and universities develop interdisciplinary programs, she was a member of AACU's first national Task Force on Interdisciplinary Studies, served as a consultant for AACU's Asheville Institute on General Education, and was a member of AACU's national task force on Integrative Learning. From 1997–2000, Klein was a Member of the national Academic Assembly Council of The College Board, and from 1999–2000 served as a Member of the Association for Integrative Studies Task Force on Accreditation. In addition, she

advised the National Institutes of Health, the National Academies of Science, and the National Science Foundation on interdisciplinary research and education.

Klein is active internationally as well. In l978-79 she was Visiting Foreign Professor at Shimane University in Matsue, Japan; in l987, a Fulbright Lecturer at Tribhuvan University in Nepal; in 1991, an Academic Specialist sponsored by the United States Information Agency in Kathmandu; and, in 1995, a Foundation Visitor at the University of Auckland, New Zealand. In addition, she has spoken on interdisciplinarity in Brazil, Mexico, Uruguay, Australia, and Russia; and served as invited member of the planning board for the Swiss National Science Foundation's international conference on transdisciplinary approaches to sustainability in 2000. More recently, she has served as a member of the Academy of Finland's Integrative Research team in Helsinski, a member of the (US) National Academies of Science task force on modernizing the National Science Foundation's taxonomy for classifying fields of science and engineering, and an advisor to the Royal Netherlands Academy of Arts and Sciences on evaluation of inter- and transdisciplinary research.

## GOLD MEDAL OF HONOR LECTURE SERIES
## C. V. Ramamoorthy

Monday, May 24, 4:30 pm - 5:00 pm, Room:

**C.V. Ramamoorthy**
*University of California, Berkeley, CA*

Dr. Ramamoorthy's distinguished career tracks back to the 1960s. In 1961, while working as a scientist for Honeywell, Ramamoorthy developed the entire microcode to handle instruction sequencing and control for the H290, Honeywell's first transistorized system. The H290 was a general-purpose, stored-program digital computer designed for process monitoring and control. In the late 1960s, Ramamoorthy joined the University of Texas, Austin, as a professor of electrical engineering and computer science, later becoming chair of the computer science department. At UC Berkeley, where he joined the faculty in 1972, Ramamoorthy is an emeritus professor of Electrical Engineering and computer science. Most recently, his research investigations have focused on service industries, functions, features, and control and the relationships between software and service engineering. IEEE Society has honored Ramamoorthy's achievements with the Taylor L. Booth Education Award in 1989, the Richard E. Merwin Distinguished Service Award in 1993, Golden Core recognition in 1966, and Tsutomu Kanai Award in 2000. He also received the IEEE Centennial Medal and the IEEE Third Millennium Medal. He has been an IEEE Fellow since 1978 and is a Fellow of the Society for Design and Process Science, from which he received the R.T. Yeh Distinguished Achievement Award in 1997. A longtime Computer Society volunteer, Ramamoorthy was founding editor in chief of IEEE Transactions on Knowledge and Data Engineering and served as editor in chief of IEEE Transactions on Software Engineering. He has published more than 150 papers, coedited three books, and holds patents in computer architecture, software engineering, computer testing and diagnosis and databases.He holds two undergraduate degrees in Physics from India. He obtained two graduate degrees in Mechanical Engineering from University of California at Berkeley, and two graduate degrees in Applied mathematics and Computer Sciences from Harvard.

## DINNER SPEAKER
## Admiral B. R. Inman

Monday, May 24, 8:00 pm - 8:30 pm, Room:

**Admiral B.R. Inman**
*Managing Director of*
*Gefinor Ventures*
*and*
*Limestone Ventures*

Admiral Inman graduated from the University of Texas at Austin in 1950, and from the National War College in 1972. He became an adjunct professor at the University of Texas at Austin in 1987. He was appointed as a tenured professor holding the Lyndon B. Johnson Centennial Chair in National Policy in August 2001. He served as Interim Dean of the LBJ School of Public Affairs from 1 January to 31 December 2005 and was appointed in January 2009 to serve as Interim Dean a second time.

Admiral Inman served in the U.S. Navy from November 1951 to July 1982, when he retired with the permanent rank of Admiral. While on active duty he served as Director of the National Security Agency and Deputy Director of Central Intelligence. After retirement from the Navy, he was Chairman and Chief Executive Officer of the Microelectronics and Computer Technology Corporation (MCC) in Austin, Texas for four years and Chairman, President and Chief Executive Officer of Westmark Systems, Inc., a privately owned electronics industry holding company for three years. Admiral Inman also served as Chairman of the Federal Reserve Bank of Dallas from 1987 through 1990.

Admiral Inman's primary activity since 1990 has been investing in start-up technology companies, where he is a Managing Director of Gefinor Ventures and Limestone Ventures. He is a member of the Board of Directors of Massey Energy Company and of several privately held companies. He serves as a Trustee of the American Assembly and the California Institute of Technology. He is an elected Fellow of the National Academy of Public Administration.

## Conference Dinner
Monday, May 24, 2010, 7:00 pm - 9:30 pm

## SPECIAL EVENTS ON Tuesday, May 25, 2010

## PLENARY SESSION-III DISTINGUISHED SPEAKER Basarab Nicolescu

Tuesday, May 25, 9:00 am - 9:30 am, Room:

Copyright, Louis Monier

**Basarab Nicolescu**
*President, International Center for Transdisciplinary Research and Studies (CIRET) France*

### Methodology of Transdisciplinarity - Levels of Reality, Logic of the Included Middle and Complexity

Theoretical physicist at the Centre National de la Recherche Scientifique (CNRS), Paris, France. Professor at the Babes-Bolyai University, Cluj-Napoca, Romania. Member of the Romanian Academy. Founding member of ISSR. President-Founder of the International Center for Transdisciplinary Research and Studies (CIRET), a non-profit organization (165 members from 26 countries), which has a web site at : http://basarab.nicolescu.perso.sfr.fr/ciret/index.htm. Founder and Director of the Transdisciplinarity Series, Rocher Editions, Monaco, of the Romanians in Paris Series, Oxus Editions, Paris and of the Science and Religion Series, Curtea Veche, Bucharest (in collaboration with Magda Stavinschi). A specialist in the theory of elementary particles, Basarab Nicolescu is the author of 130 articles in leading international scientific journals, has made numerous contributions to science anthologies and participated in several dozen French radio and multimedia documentaries on science. Basarab Nicolescu is a major advocate of the transdisciplinary reconciliation between Science and the Humanities. He published many articles on the role of science in the contemporary culture in journals in USA, France, Romania, Italy, United Kingdom, Brazil, Argentina and Japan. His books include : *Manifesto of Transdisciplinarity*, State University of New York (SUNY) Press, New York, 2002; *Nous, la particule et le monde*, Rocher, Monaco, 2002 (2nd edition) ; *Science, Meaning and Evolution - The Cosmology of Jacob Boehme*, Parabola Books, New York, 1991. He edited recently *Transdisciplinarity -Theory and Practice*, Hampton Press, Cresskill, New Jersey, 2008. A complete biobibliography of Dr. Basarab Nicolescu can be found on the page:
http://basarab.nicolescu.perso.sfr.fr/Basarab/index.html

## TheATLAS/Its-Village BBQ Party

Tuesday, May 25, 5:30 pm

## PLENARY SESSION-IV DISTINGUISHED SPEAKER Christian Pohl

Tuesday, May 25, 9:30 am - 10:00 am, Room:

**Christian Pohl**
*Co-Director Transdisciplinary-net of the Swiss-Academies of Art and Science*

### From Transdisciplinarity to Transdisciplinary Research

Dr. Christian Pohl is co-director of the transdisciplinarity-net of the Swiss-Academies of Art and Science and senior researcher and lecturer at the Department of Environmental Sciences at ETH Zurich. He was trained in environmental sciences and wrote a doctoral thesis on how to handle uncertainties in environmental assessments by using fuzzy sets. As a postdoc he moved to the field of science and technology studies, where he analyzed the collaboration of natural and social scientist in Swiss and Swedish policy-driven environmental research. In 2003 he became co-director of td-net for transdisciplinary research of the Swiss Academies of Arts and Sciences (http://www.transdisciplinarity.ch/e). Td-net's aim is to strengthen research that addresses real-world issues and for that purpose bridges academic as well as non-academic expert knowledge. During the last years Christian Pohl's work at td-net focused on the methodological particularities of transdisciplinary knowledge production. Out of this work he published, amongst others, the Principles for Designing Transdisciplinary Research (2007) and co-edited the Handbook of Transdisciplinary Research (2008), both providing practical examples, theoretical basics and tools for collaborative knowledge production. Christian Pohl's main field of research and publication is the analysis and design of transdisciplinary research, specifically in the field of sustainability sciences, and with a particular interest in the collaboration between natural and social sciences and the science-policy interrelation (http://www.envphil.ethz.ch/people/pohlc/index).

## KEYNOTE PANEL-III

### Transnational Health Care: *Transnational Knowledge Acquirement on Global Healthcare Quality Improvements*

Tuesday May 25, 10:20 am- 12:00 pm, Room:

**Organizer and Chair:** Dr. S. S. Iyengar

**Panel Objective**

In India, an unfortunately large percentage of the economically deprived population falls prey to diseases which are largely preventable and treatable in the western world. Poverty, illiteracy and lack of access to basic healthcare have been the major causes contributing to this. The objective of this Keynote Panel is focused on transnational healthcare resources, practices and perspectives.

**Sitharma S. Iyengar**
*Roy Paul Professor*
*Computer Science Department*
*Louisiana State University*

Dr. S.S. Iyengar is currently the Roy Paul Daniels Professor and Chairman of the Computer Science Department at Louisiana State University. He heads the Wireless Sensor Networks Laboratory and the Robotics Research Laboratory at LSU. He has been involved with research in high Performance Algorithms, Data Structures, Sensor Fusion, Data Mining, and Intelligent Systems. Since receiving his Ph.D. degree in 1974 from MSU, USA. He has directed over 40 Ph.D. students and 100 Master's students, many of whom are faculty at major universities worldwide or scientists or engineers at national labs/industries around the world. He has published more than 380 research papers and has authored/co-authored 6 books and edited 7 books. His books are published by John Wiley & Sons, CRC Press, Prentice Hall, Springer Verlag, IEEE Computer Society Press etc. One of his books titled "Introduction to Parallel Algorithms" has been translated to Chinese. His research has been funded by National Science Foundation (NSF), Defense Advanced Research Projects Agency (DARPA), Multi-University Research Initiative (MURI Program), Office of Naval Research (ONR), Department of Energy / Oak Ridge National Laboratory (DOE/ORNL), Naval Research Laboratory (NRL), National Aeronautics and Space Administration (NASA), US Army Research Office (URO) and various state agencies and companies. He has served on US National Science Foundation and National Institute of Health Panels to review proposals in various aspects of Computational Science and has been involved as an external evaluator (ABET-accreditation) for several Computer Science and Engineering Departments. Dr. Iyengar's contributions to teaching and research have been recognized by numerous honors and awards.

## KEYNOTE PANEL-III
## DISTINGUISHED PANELISTS

**Shalin J. Shah, MD**
*MD Anderson Cancer Center*
*Houston Texas*

Dr. Shalin J. Shah is presently a doctor at the MD Anderson Cancer Center, Houston, TX. He obtained his M.D. from Albert Einstein College of Medicine and the undergraduate degree from Cornell University. His specialty is on Radiation Oncology who explores different aspects of treatments.

**Puneeth Iyengar, MD**
*MD Anderson Cancer Center*
*Houston Texas*

Dr. Puneeth Iyengar is currently a resident at MD Anderson Cancer research center. He obtained his M.D., Ph.D. from Albert Einstein College of Medicine and he has published large numbers of papers in the areas of cancer related sciences. He obtained his undergraduate degree from MIT.

## KEYNOTE PANEL-IV

### 21st Century University; the Role of a $T^3$ Curriculum

Tuesday May 25, 1:00 pm- 3:00 pm, Room:

**Chair: Dr. Jake B. Schrum, President, Southwestern University, Georgeton, Texas**

**Panel objective**
How should our higher educational system respond to the massively interconnected diversity, rapidly changing and explosive world of 21st century? This panel will explore the necessity of a transdisciplinary, transcultural,and transnational ($T^3$) curriculum as a key part of our response.

**Jake B. Schrum**
*President*
*Southwestern University*
*Georgetown, Texas*

(see Opening Reception for short bio).

## KEYNOTE PANEL-IV
## KEYNOTE SPEAKER

**W.T. Chen**
*President*
*National Tsing Hua University*
*Taiwan*

WT Chen is the president of the National Tsing Hua University in Taiwan. He has been with the National Tsing Hua University since 1976 and is currently a Chair Professor of the Department of Computer Science. He has served as Department Chairman, Dean of College of Electrical Engineering & Computer Science, and Director of Science & Technology Advisory Office, Ministry of Education. He has consulted in various levels of Taiwan Government and served as a member of many planning and technical review boards. For 15 years, Professor Chen has served as Co-Chairman and Chairman of the Technical Evaluation Board of the Ministry of Economic Affairs for Promoting High-Tech Products and Technologies, which is recognized as most pivotal in promoting industrial technologies in Taiwan.

Professor Chen pioneered the design of computer networks and parallel systems in early 1980s. He is currently leading a project for design and applications of advanced information networks. He has received numerous awards for his achievements in computer networking and parallel processing, including Outstanding Research Awards of the National Science Council, National Chair of the Ministry of Education, and Technical Achievement Award of the IEEE Computer Society. Professor Chen was the General Chair of the 2000 IEEE International Conference on Distributed Computing Systems and the Founding General Chair of the IEEE International Conference on Parallel and Distributed Systems. He is an IEEE Fellow.

**Allam Appa Rao**
*Vice Chancellor*
Jawaharlal Nehru Technological
University, Kakinada, India

Dr. Allam Appa Rao is the Vice Chancellor of Jawaharlal Nehru Technological University, Kakinada, India He has been a Professor from the year 1985. He started his career in computing field in the year 1969. He had his early training in computers from the Indian Statistical Institute, Calcutta, and ICTP, Trieste, Italy. He obtained his Ph.D. degree for his work in Studies on Computer Performance Evaluation. He has devoted himself to promoting computerization in India in all his endeavors for the last three decades. Dr . Rao proposed new computing methods, and showed the way to better treatments of disease and better understanding of healthy life. Perhaps even more intriguing, his work may enable the design of entirely novel systems that could prove useful in applications ranging from medicines to environmental cleanup and more. Dr. Rao holds two patents as a co inventor for Method(s) of stabilizing and potentiating the actions and administration of brain-derived neurotrophic factor (BDNF). Dr. Allam Appa Rao has published extensively and received numerous awards for his research work and teaching.

**Dr. Jeffrey J.P. Tsai**
*Founding President*
*Asia University*
*Taichung, Taiwan*

Dr. Jeffrey J.P. Tsai received his Ph.D. degree in Computer Science from Northwestern University in Evanston, Illinois. He is a Professor of Computer Science and the Director of the Distributed Real-Time Intelligent Systems Laboratory at the University of Illinois at Chicago. He is also a Chair Professor at National Chiao-Tung University, a Senior Research Fellow of IC2 at the University of Texas at Austin, and an Adjunct Professor in the School of Public Health and Tropical Medicine at Tulane University. He was a Visiting Computer Scientist in the U.S. Air Force Rome Laboratory in 1994. His research has been supported by U.S. National Science Foundation, U.S. Air Forces Research Laboratory, U.S. Army Research Laboratory, the Defense Advanced Research Projects Agency in the U.S. Department of Defense, Motorola, Fujitsu, etc. The technology on knowledge-based software engineering developed by him and his research team resulted in the world first complete transformation of an embedded software product in 1993 and is now used to produce communication software systems world wide. He is an author of 10 books and over 230 publications in the areas of knowledge-based software engineering, software architecture, formal modeling and verification, distributed real-time systems, bioinformatics, sensor networks, ubiquitous computing, trustworthy computing, intrusion detection, multimedia systems, and intelligent agents. He has chaired or co-chaired over 20 IEEE-sponsored international conferences including the 16th IEEE International Symposium on Software Reliability Engineering, the 9th IEEE International Symposium on Multimedia, the 1st IEEE International Conference on Sensor Networks, Ubiquitous, and Trustworthy Computing, the 3rd IFIP International Conference on Ubiquitous Intelligence and Computing, and the 5th IEEE International Symposium on Bioinformatics and Bioengineering. He also chaired the IEEE Technical Committee on Multimedia Computing and was on the steering committee of the IEEE Transactions on Multimedia. Currently, he is the Editor-in-Chief of Book Series on Health Informatics, the Co-Editor-in-Chief of International Journal of Artificial Intelligence Tools, and is on the editorial board of International Journal of Web Services Research, Journal of Ubiquitous Computing and Intelligence, Encyclopedia of Computer Science and Engineering, Wiley, International Journal of Cognitive Informatics and Natural Intelligence, International Journal of Semantic Computing, and International Journal of Software Engineering and Knowledge Engineering. He has also served on the DARPA ISAT working group and on the review panel for NSF and NIH. He was an IEEE Distinguished Speaker from 1993 to 1996. He received an Engineering Foundation Research Award from the IEEE and the Engineering Foundation Society in 1988, a University Scholar Award from the University of Illinois Foundation in 1994, an IEEE Meritorious Service Award from the IEEE Computer Society in 1994, and an IEEE Technical Achievement Award from the IEEE Computer Society in 1997. He was the Founding President of Asia University and is a Fellow of the AAAS, the IEEE, and the SDPS.

**Fuad Gattaz Sobrinho**
*President of Ambiencia Information*
*Systems, Ltd, Campinas, Brazil*

Dr. Fuad G. Sobrinho received a double–major PhD in Computer Science and Management Science from the University of Maryland in 1984. He is a Distinguished Professor at the University of Dortmund, a Distinguished Research Professor at the New Jersey Institute of Technology and a Fellow of the Society for Design and Process Science (SDPS). Dr. Sobrinho is the former Executive Director of EMBRAPA, the Brazilian Research Enterprise for Agriculture which networks the Brazilian National Research Centers in multiple areas of knowledge. He is also founder of the National Research Center for Agriculture Informatics within EMBRAPA and he served as the Secretary Executive on the Board of Directors of the Brazilian International Institute on Systems Integration (IIISis) from 1993 through 2002. He is the founder of P3 Technology and the Software Plant Process Technology integrating Business and Software Development as a Transdisciplinary Environment and he is founder and Coordinator of the first Software Plant Process Initiative in Brazil 1985–1990. Dr. Sobrinho unified the conflicting concepts of business and software components as a Whole Transdisciplinary Concept of Components. He is the founder of the First Public Cooperation Network for the Design and Simulation of Processes which greatly improved competence and creativity which has contributed to the wealth and prosperity of all human beings. Dr. Sobrinho was a board member of the Journal of Systems Integration. He has published several papers and books which illuminate transdisciplinary problems and he is currently developing a transdisciplinary curriculum for design and process science to be shared in a Transnational Collaboration Network.

## WORKSHOP-I
## International Transdisciplinary Scientist Village (Its-Village):
## *Building a amodel Sustainable Village*

Tuesday May 25, 3:30 pm- 5:00 pm, Room:

**Organizer and Chair:** Dr. Atila Ertas

**Workshop objective**

The objective of this workshop is to discuss the establishment of international research collaborations to design and build the most efficient and sustainable scientists' village employing the best practices available, introducing the latest renewable energy technologies and minimizing the use of non-renewable natural resources. Existing transdisciplinary graduate programs and proposed future transdisciplinary graduate programs will also be discussed.

**Following the Workshop there will be a BBQ party at the potential site of the proposed International Transdisciplinary Scientists' Village.**

**Atila Ertas**
*Professor*
*Mechanical Engineering Department*
Texas Tech University

Dr. A. Ertas, Professor of Mechanical Engineering, received his masters and Ph.D. from Texas A&M University. He had 12 years of industrial experience prior to pursuing graduate studies. Dr. A. Ertas has been the driving force behind the conception and the development of the transdisciplinary model for education and research. His pioneering efforts in transdisciplinary research and education have been recognized internationally by several awards of Society for Design and Process Science (SDPS). Dr. Ertas established the George Kozmetsky Endowment (GKE) and The Academy for Transdisciplinary Learning and Advanced Studies (TheATLAS) as non-profit organizations that fund transdisciplinary research and educational activities. In 2008, he created a non-profit organization called International Transdisciplinary Scientists' Village (Its-Village). Currently, he is the founding president of this organization and looking for extraordinary people to develop the organization. He has developed the Transdisciplinary Master of Engineering and Ph.D. Programs on Design, Process, and Systems in conjunction with the Raytheon Company in Dallas, Texas. This program has graduated over 100 students. Dr. Ertas has written numerous technical papers and modules on transdisciplinary education. He is a Senior Research Fellow of the ICC Institute at the University of Texas Austin, a Fellow of ASME, and a Fellow of SDPS. He is the founder and was the first Co-Editor-in-Chief of Transdisciplinary Journal of Integrated Design & Process Science (JIDPS), founder of Integrated Design & Process Technology Conference (IDPT), Co-founder of ASME Engineering Systems and Design Analysis (ESDA) conference, founding president and co-founder of SDPS. Dr. Ertas has earned both national and international reputation in engineering design. Dr. Ertas is co-editor of more than 35 conference proceedings, senior co-author of transdisciplinary design textbook, The Engineering Design Process, published by John Wiley & Sons, Inc, and author of Fundamentals of Engineering (Static, Dynamics, and Strength of Materials) published by TheATLAS. Three of Dr. Ertas' design projects completed at Texas Tech University have won national awards. Dr. Ertas' contributions to teaching and research have been recognized by numerous honors and awards. The honors and awards include: President's Excellence in Teaching; Pi Tau Sigma Best Professor Award; Pi Tau Sigma Outstanding Teaching Award; Halliburton Award in recognition of outstanding achievement and professionalism in education and research; College of Engineering Outstanding Researcher Award; George T. and Gladys Hanger Abell Faculty Award for overall excellence in teaching and research; and President's Academic Achievement Award. He also received the most prestigious SDPS George Kozmetsky Distinguished Achievement Award and Excellence in Leadership Award. Recently in his honor, the Society for Design and Process Science established the Ertas Transdisciplinary Scientists and Engineers Award to recognize distinguished achievement in transdisciplinary science and/or engineering. Most recently, he was recognized as one of the distinguished former students of Texas A&M, Mechanical Enginering Department. He has published over 150 scientific papers that cover many engineering technical fields. He has been PI or Co-PI on over 50 funded research projects. Under his supervision more than 160 graduate students have received degrees.

## WORKSHOP-I
## KEYNOTE SPEAKER
## Vicki Rainey

**Dr. Vicki Rainey**
TheATLAS *President*

Dr. Vicki Rainey is a native of Dyersburg, Tennessee. She received her B.S. in Secondary Education from the University of Tennessee – Martin (1968), an M.S. in Mathematics from the University of Mississippi (1970), a Ph.D. in Higher Education (mathematics concentration) at the University of Mississippi (1979), and an M.A. in Counseling from Amberton University (2001). Dr. Rainey began her career as a math teacher for the Memphis City Schools from 1969 through 1975. In the Fall of 1975, she joined the mathematics staff at Shelby State Community College (consolidated as a part of Southwest Tennessee Community College) where she attained the rank of Associate Professor of Mathematics. In November of 1980, Dr. Rainey left West Tennessee to work as a software engineer for E-Systems, a small defense company in the suburbs of Dallas, Texas. In 22 years at the Texas location, including acquisition by the defense giant Raytheon, she rose to the rank of Director, Software Engineering responsible for the management and technical direction of up to 850 engineers.

As Director, Software Engineering, Dr. Rainey worked with several universities to aid in the coordination of industrial needs and academic curricula. She was also active in the efforts to integrate engineering concepts into other academic areas through sponsoring of transdisciplinary education. Dr. Rainey presented her ideas through publications, national presentations, international presentations, and development of societies and academies to further these ideas. Her involvement with the theory behind the way engineering processes blend with other subjects and the way engineers approach problem solving, led her to pursue a degree in counseling. After completing her counseling degree and "retiring" from Raytheon to return home, Dr. Rainey was hired as an instructor of developmental mathematics at Dyersburg State Community College. Currently, Dr. Rainey is the President of the Academy of Transdisciplinary Learning and Advanced Studies (TheATLAS).

## WORKSHOP-I INVITED SPEAKERS

**Shannon May**
*President & Founder*
*Bridge International Academies*

Her most recent work has led to a specialization in the history of sustainable development, environmental planning, ecological design and in particular the social and economic factors involved in building eco-cities. Shannon has studied these issues both in general and in the case of recent history in China. She has first hand experience with Chinese Green Village project at Huangbuiyu and she will share her views with conference participants.

### WORKSHOP-I PARTICIPANTS

**Dr. Yong Zeng,Professor**, Concordia Institute for Information Systems Engineering, Concordia University, Montreal, Quebec, Canada
**Dr. I. Esat,** Professor of Mechanical Engineering, Brunel University, UK
**Dr. Aurilla Aurelie Arntzen**, Technology and College University Buskerud, Norway
**Dr. Jorn Altmann,** Professor of Technology, Management, Economics and Policy (TEMEP), Seoul National University, Korea
**Dr. Liciniu A. Kovacs,** , Faculty of Business, "Babes-Bolyai" University, Cluj-Napoca, Romania
**Dr. Kiyoshi Itoh**, Faculty of Science & Technology, Sophia University, Tokyo, Japan
**Dr. Yamaguchi Hiroshi**, Research & Development Initiative, Chuo University, Tokyo, Japan
**Dr. Radmila Juric**, Department of Information Systems, School of informatics, University of *Westminster, London, United Kingdom.*
Dr. Fuad Gattaz Sobrinho President of Ambiencia Information Systems, Ltd, Campinas, Brazil.
Dr. Jeffrey J.P. Tsai, Founding President, Asia University Taichung, Taiwan

## SPECIAL EVENTS ON Wednesday, May 26, 2010

## KEYNOTE PANEL-V

### Making The World A "Better Place"
### *Looking for long-term sustainable solutions*

Wednesday, May 26, 10:20 am- 12:00 pm, Room:

**Chair: Dr. Fuad Gattaz Sobrinho**

*Service to Humanity:*
*Get to know the poor in your country. Love them. Serve them.*

**Mother Teresa**

*I know God will not give me anything I can't handle. I just wish that He didn't trust me so much.*

**Mother Teresa**

## KEYNOTE PANEL-V DISTINGUISHED PANELISTS

**Lily Yeh**
*Founding Director*
*and*
*Lead Artists*
*Barefoot Artists, Inc.*

(see Luncheon Speaker for short bio)

**Reverend Heng Sure**
*Managing Director of the*
*Berkeley Buddhist Monastery*

(see Keynote Panel-I for short bio).

**Shannon May**
*President & Founder*
*Bridge International Academies*

(see Keynote Panel-II for short bio)

## WORKSHOP-II
## Transdisciplinary Approaches to Meet Sustainable Design needs

Wednesday, May 26, 1:00 pm- 2:30 pm, Room:

**Organizer:** Dr. Derrick Tate,Texas Tech University
**Chair:** Dr. T. T. Maxwell, Texas Tech University

**Workshop objective**
The objective of this workshop is to identify transdisciplinary challenges and opportunities for the sustainable design of energy, transportation, building, and manufacturing systems. The workshop will consist of short presentations of current projects followed by group discussion of research topics and collaborative approaches.

## WORKSHOP-II DISTINGUISHED SPEAKERS

**Derrick Tate**
*Mechanical Engineering Department*
*Texas tech University*

Dr. Derrick Tate is an Assistant Professor in the Mechanical Engineering Department at Texas Tech University. He aims to impact society through bringing design thinking to areas of strategic importance: developing sustainable approaches for building systems, transportation, and manufacturing; facilitating mass innovation; and enabling innovation in enterprises. His current projects working with West Texas entrepreneurs on the development of innovative and sustainable designs and a US-Tanzania Workshop: Advancing the Structural Use of Earth-based Bricks, funded by NSF. He received a B.S. in Mechanical Engineering degree from Rice University. His S.M and Ph.D. degrees in Mechanical Engineering are from MIT in the areas of manufacturing and design, respectively.

**Larry Williamson**
*CEO*
*EarthCO Building Systems, Inc.*

Larry Williamson is CEO, EarthCO Building Systems, Inc. He graduated from Texas Tech University in 1975 with BS in Range and Wildlife Management. He has 35 years of professional construction project management experience, including serving as Project Manager for projects for EPA, TxDot, TNRCC, FAA, and various multinational companies. He is a proven innovator with multiple international patents.

**Michael Sanders**
*Interim President and*
*Chairman of Infintium Fuel Cell*
*Systems, Inc.*

Dr. Michael Sanders is the interim President and Chairman of Infintium Fuel Cell Systems, Inc., a Texas Corporation that offers a complete low pressure/low temperature hydrogen fuel cell power system for material handling equipment. Dr. Sanders is also a Senior Organizational Analyst and Manufacturing Specialist with the Texas Manufacturing Assistance Center at Texas Tech University. He is an expert speaker in production systems, organizational structure and strategic direction, quality systems and initiatives, organizational optimization and turn-around, Global Supply Chain and Consumer Initiated Production System (CIPSTM).

Dr. Sanders has more than 25 years of industry and academic experience. He has owned and operated manufacturing, distribution, and Research & Development companies. He has led projects in various industries including automotive (engine plants, use of robotics and AGV in flow process, RFID/GPS collaborative technologies, paint systems, and parts manufacturing, distribution, and after market systems), healthcare (utilization and implementation of lean and six-sigma principles), alternative energy technologies (gas transport module –GTM organizational and production flow structure), software (directing and technically consulting collaborative applications for service and manufacturing platforms), and food and drug manufacturing and distribution systems (domestic and global distribution systems).

Dr. Sanders has published numerous technical research papers in the areas of organizational optimization, project management, implementation methodologies, computer integrated systems, agile and lean manufacturing systems, operational processes for small and medium sized enterprises (SMEs), and global supply chain systems. He has delivered speeches to worldwide audiences in several global conferences with topics related to global supply chain optimization, quality and regulatory systems, economic optimization in select industries, and beyond lean production systems. Dr. Sanders obtained his Ph. D. in Industrial Engineering with minor in Management from Texas Tech University and serves as an ambassador for BeehiveFund non-profit Corp. He is also a technical advisor to Texas Emerging Technology Fund in the State of Texas for the West Texas Region.

## Coffee Breaks

Every day 10:00 am - 10:20 am
Monday, 3:30 pm - 4:00 pm
Tuesday, 3:00 pm - 3:30 pm
Wednesday, 3:00 pm - 3:30 pm
Thursday, 3:00 pm - 3:30 pm

## TOPICS FOR SESSIONS
**(limited number of sessions will be organized)**

**Abstract submissions due** November 27, 2009
**Full paper submissions due** February 26, 2010
**Final acceptance** April 9, 2010
**Final manuscript due** April 16, 2010

The abstract (200 words) may be submitted by fax or e-mail. Please submit your papers to session developers below or Dr. Atila Ertas (aertas@coe.ttu.edu)

### SESSION
### Collaborative Systems for Transdisciplinary Research
**Organizer and Chair:** Dr. Kiyoshi Itoh

**Dr. Kiyoshi Itoh**
Information and Systems Engineering, Sophia University, Japan
itohkiyo@sophia.ac.jp

### SESSION
### Generic Optimal Control Algorithms
**Organizer and Chair: Dr. I. Esat**

### SESSION
### Human Body Motion Modeling
**Organizer and Chair: Dr. I. Esat**

**Dr. Ibrahim Esat**
Brunel University, UK
ibrahim.esat@ntlworld.com

## Conference Luncheon
Monday, May 24, 2010, 12:00 pm - 1:00 pm

### SESSION
### Simulation Optimization
**Organizer and Chair:** Dr. Tad Gonsalves

**Dr. Tad Gonsalves**
Dept. of Info & Computer Science
Faculty of Science & Technology
Sophia University, Japan
t-gonsal@sophia.ac.jp

### SESSION
### Pervasive Healthcare for Sustainable Society
**Organizers and Chairs:** Dr. Radmila Juric, University of Westminster, School of Informatics, London, UK

**Dr. Radmila Juric**
Department of Information Systems, School of informatics, University of Westminster, London, United Kingdom.
R.Juric@westminster.ac.uk

### SESSION
### Transdisciplinary Methods and Tool Developments
**Organizer: Dr. A. Ertas**

### SESSION
### Sustainable Development and Any other Related Topics
**Organizer: Dr. A. Ertas**

**Dr. Atila Ertas**
Mechanical Engineering Department
Texas Tech University
aertas@coe.ttu.edu

# HONORING
# International Transdisciplinary Scientists' Village
# Founding Fellows

Monday May 24, 9:00 pm

**Dr. Aurilla Aurelie Arntzen**
Technology and College University
Buskerud, Norway

**Dr. I. Esat**
Brunel University, UK

**Dr. Yamaguchi Hiroshi**
Chuo University, Tokyo, Japan

**Dr. Kiyoshi Itoh**
Sophia University, Japan

**Dr. Radmila Juric**
University of Westminster, UK

**Dr. Liciniu A. Kovacs**
Faculty of Business, "Babes-Bolyai"
University, Cluj-Napoca, Romania

**Dr. Allam Appa Rao**
Jawaharlal Nehru Technological
University, Kakinada, India

**Dr. Fuad Gattaz Sobrinho**
*Ambiencia Information Systems, Ltd,*
*Campinas, Brazil*

**Dr. Jeffrey J.P. Tsai**
*Asia University, Taichung, Taiwan*

**Dr. Yong Zeng**
*Concordia University, Montreal, Quebec,*
*Canada*

# 2009 ACADEMY GOLD MEDAL OF HONOR RECIPIENTS

The Academy of Transdisciplinary Learning and Advanced Studies(TheATLAS) is pleased to present an award "The Academy Gold Medal of Honor" for distinguished contribution to the advancement of Transdisciplinary Foundational ideas and activities. The award comes with Honorary lifetime Membership in the Academy. The Academy Gold Medal of Honor recognizes unusual accomplishment in transdisciplinary education and research, public service, and other allied pursuits beneficial to design and process science. Award ceremony will be during the Conference Dinner on May 24th, 2010.

## 2009 Academy Gold Medal of Honor Recipient

**Professor Muhammad Yunus**
*Nobel Laureate*

Professor Muhammad Yunus is probably best know for his work in microeconomics as a way to raise the living standards for some of the poorest people around the world. The effort earned him a Nobel Peace Prize in 2006.

As founder of the Grameen Movement, Professor Muhammad Yunus is a revolutionary. His ideas couple capitalism with social responsibility and have changed the face of rural economic and social development forever. The Grameen Bank operates 1,092 branches in 36,000 rural Bangladesh villages, providing credit to over two million of the country's poorest people in Bangladesh. Since its inception, Grameen has loaned more than US$2 billion. This new banking system of providing unsecured credit to the poorest of the poor began as an action- research project at Chittagong University, and later grew into a full-fledged bank. Grameen Bank's patrons are 94% women who have an unparalleled repayment rate of 98%.

Professor Yunus is responsible for many innovative programs benefiting the rural poor. In 1974, he pioneered the idea of Gram Sarker (village government) as a form of local government based on the participation of rural people. This concept proved successful and was adopted by the Bangladeshi government in 1980. In 1978, Yunus received the President's award for Tebhaga Khamar (a system of cooperative three-share farming, which the Bangladeshi government adopted as the Packaged Input Program in 1977).

A Fulbright Scholar at Vanderbilt University, Professor Yunus received his Ph.D. in Economics in 1969. Later that year, he became an assistant professor of Economics at Middle Tennessee State University, before returning to Bangladesh where he joined the Economics Department at Chittagong University.

The UN secretary general appointed Professor Yunus to the International Advisory Group for the Fourth World Conference on Women in Beijing from 1993 to 1995. Professor Yunus has also served on the Global Commission of Women's Health (1993-1995), the Advisory Council for Sustainable Economic Development (1993-present), and the UN Expert Group on Women and Finance. He also serves as the chair of the Policy Advisory Group (PAG) of Consultative Group to Assist the Poorest (CGAP). Yunus has also served on many committees and commissions dealing with education, population, health, disaster prevention, banking, and development programs. He is currently on the boards of many international organizations including Amanah Ikhtiar Malaysia (a Grameen replication project), the International Rice Research Institute in the Philippines, and Credit and Savings for the Poor in Malaysia. Professor Yunus also sits on the board of the Calvert World Values Fund, the Foundation for International Community Assistance, the National Council for Freedom From Hunger, RESULTS and the International Council of Ashoka Foundation, all of which are located in the US.

Professor Yunus has received the following International awards: the Ramon Magsaysay Award (1984) from Manila; the Aga Khan Award for Architecture (1989) from Geneva; the Mohamed Shabdeen Award for Science (1993) from Sri Lanka; and the World Food Prize by World Food Prize Foundation

## 2009 Academy Gold Medal of Honor Recipient

**Lily Yeh**
Founding Director and Lead Artists
Barefoot Artists, Inc.

(see Luncheon Speaker for short bio).

# 2010 ACADEMY GOLD MEDAL OF HONOR RECIPIENTS

**2010 Academy Gold Medal of Honor Recipient**

**Red McCombs**
McCombs Enterprises, Chairman & COO
(see Keynote Speaker for short bio)

# 2010 TheATLAS RAMAMOORTHY & YEH TRANSDISCIPLINARY DISTINGUISHED ACHIEVEMENT AWARD

**Award ceremony will be during the conference dinner on May 24, 2010**

TheATLAS Ramamoorthy & Yeh Transdisciplinary Distinguished Achievement Award to be awarded annually during the TheATLAS annual meeting. This award is given in recognition of distinguished and meritorious achievement in transdisciplinary research and education as evidenced by use of transdisciplinary creative and innovative methods in solving complex problems and outstanding leadership in transdisciplinary education and its activities.

**Dr. Julie Thompson Klein**
Professor
Wayne State University

**Shannon May**
President & Founder
Bridge International Academies

**Dr. Basarab Nicolescu**
President, International Center for Transdisciplinary Research and Studies (CIRET)-France)

**Dr. Christian Pohl**
Co-Director of the
Transdisciplinary-net of the
Swiss-Academies of Art and Science

**Dr. Jeffrey J.P. Tsai**
Founding President
Asia University, Taichung, Taiwan

## CONFERENCE COMMITTEE

### Honorary Chairmen

George Garver
Mayor
Georgetown, Texas, USA

Mel Pendland, President
Chamber of Commerce
Georgetown, Texas, USA

### Conference Chairmen

James Smith
Texas Tech University
Lubbock, Texas, USA

W. Joseph King
Southwestern University
Georgetown-Texas, USA

### Program Chairman

A. Ertas
Texas Tech University
Lubbock, Texas, USA

### Program Vice-Chairmen

K. Itoh
Sophia University
Tokyo, Japan

I. Esat
Brunel University
London, UK

## GEORGETOWN CITY AND HOTEL INFORMATION

The Comfort Suites® hotel is located 30 miles north of Austin, just east of Interstate 35. This Georgetown hotel is ideally situated with easy access to Southwestern University, Inner Space Cavern and Lake Georgetown. A local hot spot is Blue Hole, a scenic lagoon and natural swimming hole on the San Gabriel River.

The parks in and around Georgetown offer miles of hiking and biking trails, as well as tennis courts, swimming pools and many golf courses. A tour of downtown reveals many historic buildings, galleries, museums and live music venues.

Be sure to enjoy Market Days every second Saturday, featuring handmade arts and crafts, jewelry, unique clothing, woodcrafts, festive foods, antiques, collectibles, stained glass, entertainment and much more. The nearby outlet mall is a shopper's paradise, offering 77 stores and a large movie theater.

Restaurants run the gamut from Tex-Mex cuisine to fried catfish to barbecue and everything in between. A number of eateries and lounges can be found in the surrounding area.

### Comfort Suites

11 Waters Edge Circle
Georgetown, TX, US, 78626
Reservation Direct Line: (512) 863-7544
Fax: (512) 863-7545

### Room Rates

**Single or double room with breakfast**
( 1 King Bed or double bed): $105

**Cut-Off Date: May 7, 2010**

Reservations must be received no later than May 7, 2010. Reservations received after this date will be accepted on a space available basis.

**Hotel guests are offered many amenities and features, including:**

Free hot deluxe breakfast
Free coffee
Free weekday newspaper
Free high-speed Internet access in all suites
Free local calls

## CONFERENCE REGISTRATION

Conference registration fee ($395) includes:

--TheATLAS Welcome Reception on Sunday, May 23rd.
--Conference Dinner on Monday, May 24th.
--Conference Luncheon on Monday, May 24th.
--TheATLAS/Its-Village BBQ Party on Tuesday, May 25th.
--Coffee Breaks every day.
--Tour for Inner Space Caverns on Friday, May 28th.
--Conference Proceedings-CD or hard copy.

### FOR MORE INFORMATION CONTACT:

A. Ertas
Texas Tech University, Mechanical Engineering Department
Lubbock, Texas 79409-1021
Phone: (806) 742-3563, Ext:236; Fax: (806) 742-3540
email: (aertas@coe.ttu.edu)

# ENTERTAINMENT AND TOURS

## TheATLAS/Its-Village BBQ Party

Tuesday May 25, 5:30 pm

Southwestern University will host a BBQ party at the potential International Transdisciplinary Scientists' Village (Its-Village) location. You will enjoy the live music and Texas Hill Country BBQ.

## Inner Space Caverns in Georgetown, TX Exploring a Natural Wonder

Friday, May 28, 9:30 am

Inner Space Caverns was discovered in 1963 during construction of I-35. Hidden for 10,000 years, Inner Space Cavern is one of the best preserved caves in Texas and one of the few places where remains of prehistoric animals were unearthed. Explore this limestone cavern and discover beautiful examples of nature's perfect artwork such as "The Flowing Stone of Time", the mysterious "Lake of the Moon" and the intricate "Soda Straw Balcony". Among the amazing variety of formations found within the cavern you will see beautiful helictites, ancient flowstones, and giant columns. Entrance is by cable car, and sound and light efects enhance the cave's atmosphere.

## "Live Music Capital of the World" Austin- Texas 6th Street Entertainment

Wednesday, May 26 and Thursday, May 27
7:00 pm.

Bus service will be provided to 6th Street on Tuesday after the BBQ party.

Sixth Street (formerly known as Pecan Street) is lined with many historical houses and commercial buildings dating from the late 1800's and early 1900's. The storied old buildings now house numerous bars, a host of live entertainment venues, art galleries, casual cafes, and upscale restaurants. Live music of every genre abounds. From jazz, blues, and country to rock, hip-hop, beat, progressive, metal, punk and derivations of these, there's something to whet everyone's musical pallete. Great food is a staple on Sixth Street, featuring such regional staples as chili, ribs, and Tex-Mex plus steak, seafood, cajun-

## Want to Know More About Georgetown and Southwestern University?

### Tour to Texas Life-Sciences Collaboration Center

TThe non-profit Texas Life-Sciences Collaboartion Center (TLCC) has focused its value proposition on emerging biotechnology, nanotechnology and life-sciences companies that are past the initial incubation stage and into the "post-incubation" stage of development where product or service commercialization is imminent. TLCC and its commercial development partner, Georgetown South Commercial Properties, provides Class-A office and laboratory space at low cost along with shared resources such as reception, IT infrastructure, video conference facilities, wet labs and nanotech clean rooms and equipment. TLCC also provides educational opportunities for faculty research, student internships and even teacher externships to leverage this incredible new community and regional resource.